

made by the comminution of greater transparent Crystalline bodies, but by the *concretion* or *coagulation* of Water, or some other fluid body.

There are other kinds of courser Sands, which are browner, and have their particles much bigger; these, view'd with a *Microscope*, seem much courser and more *opacous* substances, and most of them are of some irregularly rounded Figures; and though they seem not so *opacous* as to the naked eye, yet they seem very foul and cloudy, but neither do these want curiously transparent, no more than they do regularly figur'd and well colour'd particles, as I have often found.

There are multitudes of other kinds of Sands, which in many particulars, plainly enough discoverable by the *Microscope*, differ both from these last mention'd kinds of Sands, and from one another: there seeming to be as great variety of Sands, as there is of Stones. And as amongst Stones some are call'd precious from their excellency, so also are there Sands which deserve the same Epithite for their beauty; for viewing a small parcel of *East-India* Sand (which was given me by my highly honoured friend, Mr. *Daniel Colwall*) and, since that, another parcel, much of the same kind, I found several of them, both very transparent like precious Stones, and regularly figur'd like Crystal, *Cornish* Diamants, some Rubies, &c. and also ting'd with very lively and deep colours, like *Rubys*, *Saphyrs*, *Emeralds*, &c. These kinds of granuls I have often found also in *English* Sand. And 'tis easie to make such a counterfeit Sand with deeply ting'd Glass, Enamels and Painters colours.

It were endless to describe the multitudes of Figures I have met with in these kind of minute bodies, such as *Spherical*, *Oval*, *Pyramidal*, *Conical*, *Prismatical*, of each of which kinds I have taken notice.

But amongst many others, I met with none more observable than this pretty Shell (described in the *Figure X.* of the fifth *Scheme*) which, though as it was light on by chance, deserv'd to have been omitted (I being unable to direct any one to find the like) yet for its rarity was it not inconsiderable, especially upon the account of the information it may afford us. For by it we have a very good instance of the curiosity of Nature in another kind of Animals which are remov'd, by reason of their minuteness, beyond the reach of our eyes; so that as there are several sorts of Insects, as Mites, and others, so small as not yet to have had any names; (some of which I shall afterwards describe) and small Fishes, as Leeches in Vineger; and smal vegetables, as Moss, and Rose-Leave-plants; and small Mushrooms, as mould: so are there, it seems, small Shel-fish likewise, Nature shewing her curiosity in every Tribe of *Animals*, *Vegetables*, and *Minerals*.

I was trying several small and single Magnifying Glasses, and casually viewing a parcel of white Sand, when I perceiv'd one of the grains exactly shap'd and wreath'd like a Shell, but endeavouring to distinguish it with my naked eye, it was so very small, that I was fain again to make use of the Glass to find it; then, whilst I thus look'd on it, with a Pin I separated all the rest of the granules of Sand, and found it afterwards to appear to the naked eye an exceeding small white spot, no bigger than the point of a

Pin.

Pin. Afterwards I view'd it every way with a better Glass, it on both sides, and edge-ways, to resemble the Shell of a Snail with a flat spiral Shell: it had twelve wreaths, all very proportionably growing one less than the middle or center of the Shell, where there was a very small spot. I could not certainly discover whether the spot was not, but it seem'd fill'd with somewhat, and 'tis possible to be *petrify'd* as other larger Shells often are, such as I have seen in the seventeenth *Observation*.

Observ. XII. Of Gravel in Urine.

I Have often observ'd the Sand or Gravel of Urine to be a tartareous substance, generated out of a *Saline* substance *crystalliz'd* together, in the form of Tartar, the sides of the *Urinal*, but for the most part sinking there lying in the form of coarse common Sand; the *Microscope*, appear to be a company of small bodies, partly *opacous*, some White, some Yellow, some brown and duskie colours.

The Figure of them is for the most part flat, in the form of such like plated Stones, that is, each of them seem to be composed of several other thinner Plates, much like *Muscovite* Glass, the last of which, the white plated Gravel seems most like. Some are not onely plated like that, but their sides shap'd also like *Rhomboeids*, and sometimes into *Rectangles* and *Squares*. This may be seen in the second *Figure* of the sixth *Plate*, where a dozen of them lying upon a plate *ABCD*, some seem'd more regular than the rest, and *e*, which was lying on the top of another, was a perfect *Rhomboeid* with four *Rectangular* sides.

The line *E* which was the measure of the *Microscope* English Inch, so that the greatest breadth of any of these was less than a part of an Inch.

Putting these into several liquors, I found *Oxycrystalline* Urine, and several other *Saline menstrua* to dissolve some of these in less than a minute without *Ebullition*, Water, and other liquors, had no sudden operation upon them. This shew'd those liquors that dissolve them, first make them very soft, but rather rectifying their Figure, and thereby making them a pretty object for the *Microscope*.

How great an advantage it would be to such as are afflicted with a Stone, to find some *menstruum* that might dissolve the Stone, is easily imagin'd, since some *injections* might likewise dissolve the stone, which seems much

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